

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Tew

Appln. No.: TBD

Filed: Herewith

For: Optical Add Drop Multiplexer

Docket No.: TI-31213

Art Unit: TBD

Examiner: TBD

PRELIMINARY AMENDMENT

September 25, 2001

Assistant Commissioner for Patents

Washington, D. C. 20231

Dear Sir:

Before examination or calculation of fees, please amend the above-referenced application as follows:

IN THE SPECIFICATION:

Page 1: before line 1, insert: This application claims priority under 35 USC § 119(e)(1) of provisional application number 60/236,532 filed 09/29/00.

Page 1, lines 5-9: please delete in its entirety and replace as follows:

| Patent No. | Filing Date | Issue Date | Title |
|------------|----------------|---------------|--|
| 5,061,049 | Sept. 13, 1990 | Oct. 29, 1991 | Spatial Light Modulator and Method |
| 5,583,688 | Dec. 21, 1993 | Dec. 10, 1996 | Multi-Level Digital Micromirror Device |
| 09/923,911 | Aug. 7, 2001 | | Two Dimensional Blazed MEMS Grating |
| 60/236,533 | Sept. 29, 2000 | | Micromirror Optical Switch |
| 60/236,677 | Sept. 29, 2000 | | Micromirror Optical Switch |

Please replace the paragraph beginning at page 17, line 21 with the following rewritten paragraph:

When small mirrors, mirrors smaller than the beam cross-section, are used, the mirror rotations angles should be selected to ensure blazed operation of the mirror array. Mirrors in common micromirror devices are 16 μm on each side and spaced 1 μm from the surrounding mirrors. As described in U.S. Patent Application Serial No. 09/923,911, proper selection of the deflection angle ensures the array operates in an efficient blazed condition. For mirrors on 17 μm centers, as described above, ideal deflection angles are 7.5° and 11.2°, which blaze the 2nd and 3rd orders respectively. For mirrors on 13.8 μm centers, a deflection angle of 9.6° blazes the 2nd order.

Please replace the paragraph beginning at page 20, line 10 with the following rewritten paragraph:

Figure 12 is a side view of another beam splitting device used in the DWDM OADM of Figure 9. In Figure 12, light from the input fiber 1000 enters an arrayed waveguide grating. The arrayed waveguide grating router includes a series of arrayed channel waveguides which function as a diffraction grating. The arrayed waveguide grating enables the use of more than forty DWDM channels. Light separated by the

arrayed waveguide grating is output on a series of fibers 1202 to the mirror array 1008 of the OADM.

REMARKS

Entry of the foregoing amendment prior to examination is respectfully requested.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned "Version With Markings To Show Changes Made."

If the Examiner has any questions or other correspondence regarding this application, Applicant requests that the Examiner contact Applicant's attorney at the below listed telephone number and address.

Respectfully submitted,



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Version With Markings To Show Changes Made

IN THE SPECIFICATION:

The following paragraph has been inserted at page 1, before line 1:

This application claims priority under 35 USC § 119(e)(1) of provisional application number 60/236,532 filed 09/29/00.

Page 1, lines 5-9: have been deleted in its entirety and replaced as follows:

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| 5,583,688 | Dec. 21, 1993 | Dec. 10, 1996 | Multi-Level Digital Micromirror Device |
| 60/223,366 | Aug. 7, 2000 | | Two Dimensional Blazed Grating |
| TI-29776 | Herewith | | Micromirror Optical Switch |
| TI-29778 | Herewith | | Micromirror Optical Switch |

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|-------------------|-----------------------|----------------------|---|
| <u>5,061,049</u> | <u>Sept. 13, 1990</u> | <u>Oct. 29, 1991</u> | <u>Spatial Light Modulator and Method</u> |
| <u>5,583,688</u> | <u>Dec. 21, 1993</u> | <u>Dec. 10, 1996</u> | <u>Multi-Level Digital Micromirror Device</u> |
| <u>09/923,911</u> | <u>Aug. 7, 2001</u> | | <u>Two Dimensional Blazed MEMS Grating</u> |
| <u>60/236,533</u> | <u>Sept. 29, 2000</u> | | <u>Micromirror Optical Switch</u> |
| <u>60/236,677</u> | <u>Sept. 29, 2000</u> | | <u>Micromirror Optical Switch</u> |

The paragraph beginning on line 21 of page 17 has been amended as follows:

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The paragraph beginning on line 10 of page 20 has been amended as follows:

Figure 12 is a side view of another beam splitting device used in the DWDM OADM of Figure 9. In Figure 12, light from the input fiber 1000 enters an arrayed waveguide grating, ~~also known as a PHASAR~~. The arrayed waveguide grating router includes a series of arrayed channel waveguides which function as a diffraction grating. The arrayed waveguide grating enables the use of more than forty DWDM channels.

Light separated by the arrayed waveguide grating is output on a series of fibers 1202 to the mirror array 1008 of the OADM.

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